

Red River of the North valley.—1st, 5th, 7th, 8th, 9th, 12th to 15th, 29th to 31st. *Rocky Mountain.*—1st to 17th, 20th to 31st. *Southern Plateau.*—2nd, 3rd, 4th, 6th, 14th, 16th, 17th, 18th, 20th, 30th. *Middle Plateau.*—1st, 4th to 11th, 13th to 16th, 25th, 26th. *Northern Plateau.*—3rd, 4th, 7th, 9th, 10th, 16, 19th, 26th. *California.*—9th, 10th, 13th, 15th, 16th, 17th, 19th, 25th, 26th. *Oregon and Washington Territory.*—2nd, 3rd, 9th to 15th, 17th, 24th to 28th, 31st.

Greatest Monthly Snow-falls.—Cisco, Cal., 173.50 inches; Summit, Cal., 45; Niles, Mich., 43; Newport, Vt., 37.25; Woodstock, Vt., 36.30; Cornish, Me., 36; Emigrant Gap, Cal., 35; Rowe and Westborough, Mass, 34; Grafton, N. H., 33; Truckee, Cal., 31.50; Troy, N. Y., 31; Lansing, Mich., 30.40; Trinidad, Col., 29; New Corydon, Ind., 28.80; Antrim, N. H., 28.50; Deer Park, Md., 26.50; Ogden, Utah, 26.25; Cooperstown, N. Y., 25; Friendship, N. Y., 23.75; Dyberry, Pa., 23.50; Little Mountain, Ohio, 22.50; Nora Springs, Iowa, 20; Wellsboro, Pa., 19.92; Ripon, Wis., 19; Patterson, N. J., 18.25; Rockford, Ill., 17.25.

Snow on Ground at End of Month.—No reports of this condition were received from any station south of the 35th parallel, but northward of that line the distribution is shown in the various States and Territories as follows: *Maine*, 7 to 24 inches. *New Hampshire*, 30 to 48. *Vermont*, 20 to 36. *Massachusetts*, 1 on the coast to 36 in the interior. *Connecticut*, 3 to 8. *New York*, 4 to 40. *New Jersey*, 6 to 12. *Pennsylvania*, 3 to 25. *Maryland*, 0.30 to 16. *Virginia*, 4 to 8. *West Virginia*, 0 to 3. *Ohio*, 1 to 9. *Indiana*, 6 to 15. *Illinois*, 1 to 16. *Michigan*, 15 to 42. *Wisconsin*, 5 to 30. *Iowa*, trace to 20. *Minnesota*, 3 to 35. *Tennessee*, trace at Memphis. *Indian Territory*, trace at Ft. Gibson. *Arkansas*, Ft. Smith, snow on ground without intermission since November 15th, 1880. *Nebraska*, 1 to 6; Austin, 31st, snow still on ground since the early part of December, a condition which has not obtained before in the past 7 years, especially in the Loup valley. *Dakota*, 3 to 9. *Colorado*, 4 to 18. *Montana*, 12 to 24.

RELATIVE HUMIDITY.

The percentage of mean relative humidity for the month ranges, as follows: New England, 64 to 75; Middle Atlantic States, 70 to 84; South Atlantic States, 71 to 85; Eastern Gulf States 73 to 81; Western Gulf States, 64 to 82; Ohio Valley and Tennessee, 69 to 80; Lower Lake region, 66 to 83; Upper Lake region, 68 to 81; Upper Mississippi valley, 71 to 77; Missouri valley, 71 to 92; Valley of the Red River of the North, 69 to 93; Texas, 52 to 77; Middle Plateau, 48 to 64; Southern Plateau, 39 to 47; California, 63 to 82; Oregon, 78 to 87. *High stations* report the following percentages not corrected for altitude: Mt. Washington, 74.2; Pike's Peak, 69.8; Denver, 58.5; Cheyenne, 58.5; Eagle Rock, 77.7; Santa Fe, 60.0.

WINDS.

The prevailing direction of the wind during the month of January, 1881, are shown by the arrows flying with the wind, on chart No. II. The prevailing direction was *northwest* to *north* on the Atlantic coast, in the Southern States and at stations on the eastern slope of the Rocky Mountains. *North* to *east* winds prevailed in California and Arizona, and *east* to *south* winds in the North Pacific coast region, and at stations in Nevada and Idaho. In the Lake region the prevailing direction was from *northwest* to *southwest*, except in the eastern portion, where they were generally from the *south*. The prevailing direction of wind at Pike's Peak and Denver, was from the *southwest* and *south*, respectively. The prevailing direction on Mount Washington was *northwest*.

Total Movements of the Air.—The following are the largest total movements at Signal Service stations: Mt. Washington, 28,705 miles; Thatcher's Island, 14,102; New Shoreham, 12,629; Cape May, 11,852; Portsmouth, N. C., 11,489; Wood's Holl, 11,267; Indianola, 11,107; Cape Hatteras, 10,876; Kittyhawk, 10,740; Delaware Breakwater, 10,631; Eastport, 10,107; Barnegat, 9,974; Cheyenne, 9,855; Chincoteague, 9,277; Sandy Hook, 9,214; Coleman, 9,077. The *smallest* are: La Mesilla, 1,794 miles; Phoenix, 1,797; Florence, 1,839; Visalia, 1,890; Roseburg, 1,973; Missoula, 1,976; Lynchburg, 2,134; Silver City, 2,500; Augusta, Ga., 2,510; Boise City, 2,790; Dubuque, 2,810; Helena, 2,876; Tuscon, 2,981; Uvalde, 2,991; Los Angeles, 3,258.

High Winds.—Winds of 50 miles and above were observed, as follows: On summit of Mt. Washington, 1st to 10th, 12th to 15th, 17th, 18th, 20th to 31st; the highest wind was 130 miles S. on the 10th and NW. on 29th. On summit of Pike's Peak, 4th, 9th to 12th, 26th to 30th, with a maximum of SW. 88 miles on the 28th. Umatilla, NE. 58 on the 26th. Cheyenne, W. 52, 11th. North Platte, N. 52, 5th, Ft. Elliott, NW. 52, 5th. Kittyhawk, N. 56, 14th. Del. Breakwater, N. 52, 14th. Cape May, NW. 56, 27th. Wood's Holl, SE. 56, 10th. Thatcher's Island, E. 66, 21st. New Shoreham, NE. 60 21st.

Local Storms.—Santa Ana valley, Cal., 21st, p. m., violent wind-storm, destroying buildings and fences, delaying trains and prostrating telegraph poles. Petersburg, Va., 19th, very heavy wind-storm; large warehouse destroyed and other property more or less damaged.